

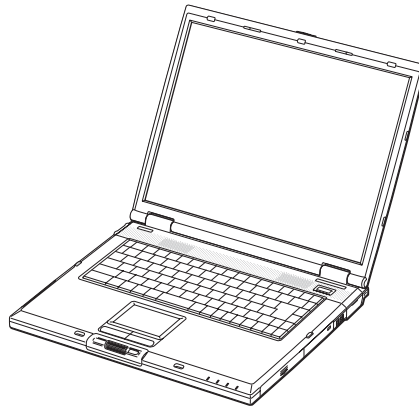
PCG-GRX606/GRX707

SERVICE MANUAL

*For American Area
Latin Model*

Ver 1-2002D

Revision History



Lineup : PCG-GRX707
PCG-GRX606

Illust : PCG-GRX707



Confidential

- Design and specifications are subject to change without notice.

NOTEBOOK COMPUTER

SONY®

Information in this document is subject to change without notice.

Sony and VAIO are trademarks of Sony. Intel logo and Intel Inside logo are registered trademarks of Intel Corporation. Pentium MMX is a trademark of Intel Corporation. Microsoft, MS-DOS, Windows, the Windows 95 and Windows 98 logo are trademarks of Microsoft Corporation.

All other trademarks are trademarks or registered trademarks of their respective owners. Other trademarks and trade names may be used in this document to refer to the entities claiming the marks and names or their produces. Sony Corporation disclaims any proprietary interest in trademarks and trade names other than its own.

Caution Markings for Lithium/Ion Battery - The following or similar texts shall be provided on battery pack of equipment or in both the operating and the service instructions.

CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

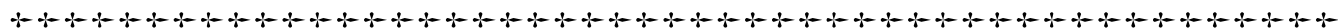
CAUTION: The battery pack used in this device may present a fire or chemical burn hazard if mistreated. Do not disassemble, heat above 100°C (212°F) or incinerate.

Dispose of used battery promptly.

Keep away from children.

CAUTION: Changing the back up battery.

- Overcharging, short circuiting, reverse charging, multilation or incineration of the cells must be avoided to prevent one or more of the following occurrences; release of toxic materials, release of hydrogen and/or oxygen gas, rise in surface temperature.
- If a cell has leaked or vented, it should be replaced immediately while avoiding to touch it without any protection.



Service and Inspection Precautions

1. Obey precautionary markings and instructions

Labels and stamps on the cabinet, chassis, and components identify areas requiring special precautions. Be sure to observe these precautions, as well as all precautions listed in the operating manual and other associated documents.

2. Use designated parts only

The set's components possess important safety characteristics, such as noncombustibility and the ability to tolerate large voltages. Be sure that replacement parts possess the same safety characteristics as the originals. Also remember that the \triangle mark, which appears in circuit diagrams and parts lists, denotes components that have particularly important safety functions; be extra sure to use only the designated components.

3. Always follow the original design when mounting parts and routing wires

The original layout includes various safety features, such as inclusion of insulating materials (tubes and tape) and the mounting of parts above the printer board. In addition, internal wiring has been routed and clamped so as to keep it away from hot or high-voltage parts. When mounting parts or routing wires, therefore, be sure to duplicate the original layout.

4. Inspect after completing service

After servicing, inspect to make sure that all screws, components, and wiring have been returned to their original condition. Also check the area around the repair location to ensure that repair work has caused no damage, and confirm safety.

5. When replacing chip components...

Never reuse components. Also remember that the negative side of tantalum capacitors is easily damaged by heat.

6. When handling flexible print boards...

- The temperature of the soldering-iron tip should be about 270C.
- Do not apply the tip more than three times to the same pattern.
- Handle patterns with care; never apply force.

Caution: Remember that hard disk drives are easily damaged by vibration. Always handle with care.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE \triangle SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

Confidential

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
CHAPTER 1. REMOVAL	1-1
		(to 1-1)
CHAPTER 2. SELF DIAGNOSTICS	2-1
		(to 2-1)
CHAPTER 3. BLOCK DIAGRAM	3-1
		(to 3-2)
CHAPTER 4. FRAME HARNESS DIAGRAM	4-1
		(to 4-2)
CHAPTER 5. EXPLODED VIEWS AND PARTS LIST	5-1
5-1. Main Section	5-3
5-2. LCD Section (GRX707) – Made by HI –	5-7
5-3. LCD Section (GRX606) – Made by HI –	5-9
		(to 5-10)

History of the changes is shown as the
“Revision History” at the end of this data.

ATTENTION

Please confirm disassembly method by “Repair Manual” which has been informed you separately.

CHAPTER 2.

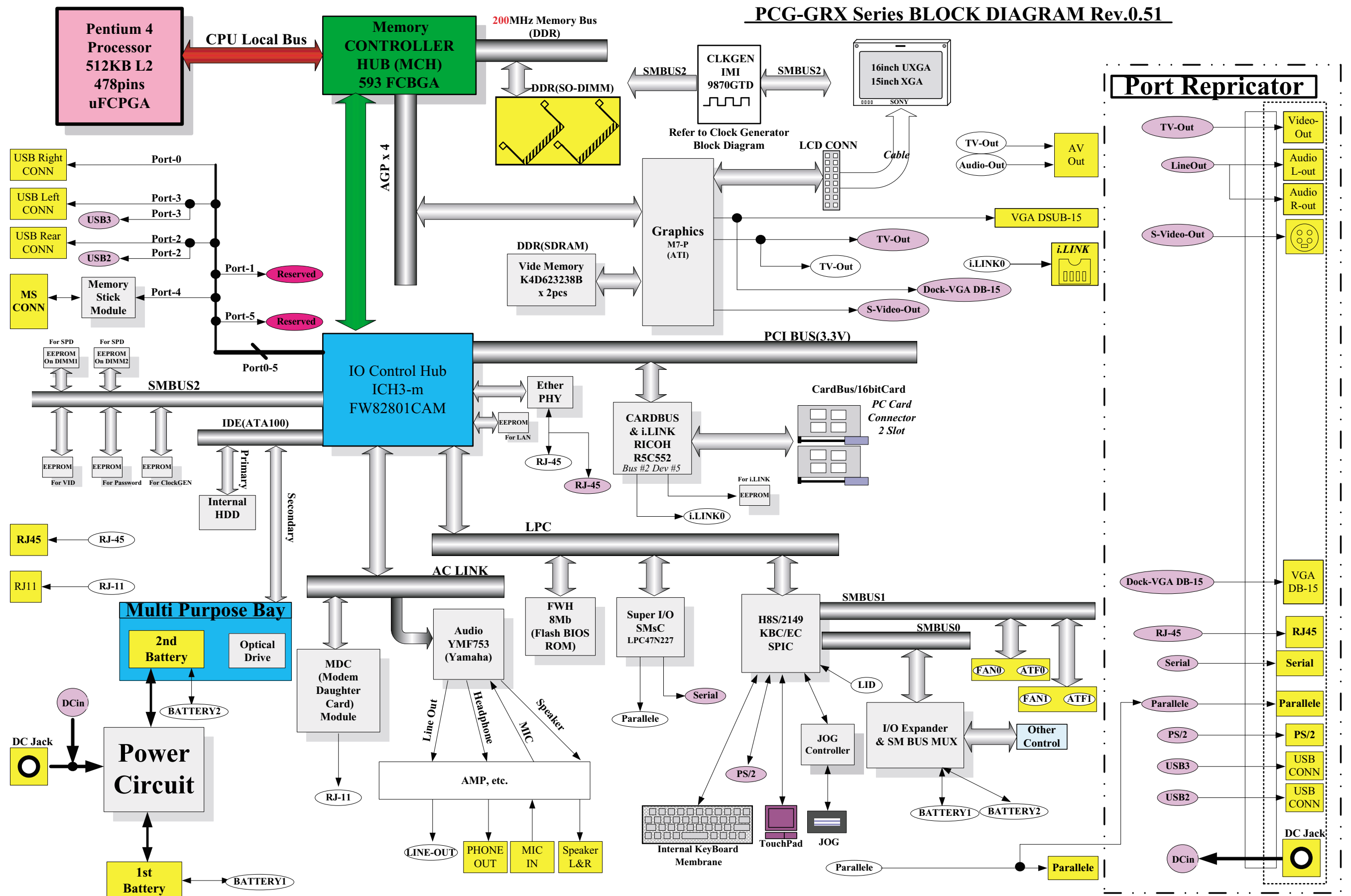
SELF DIAGNOSTICS

ATTENTION

Please confirm “Self Diagnostics” method which will be informed you with distribution of “Self Diagnostics” software.

CHAPTER 3. BLOCK DIAGRAM

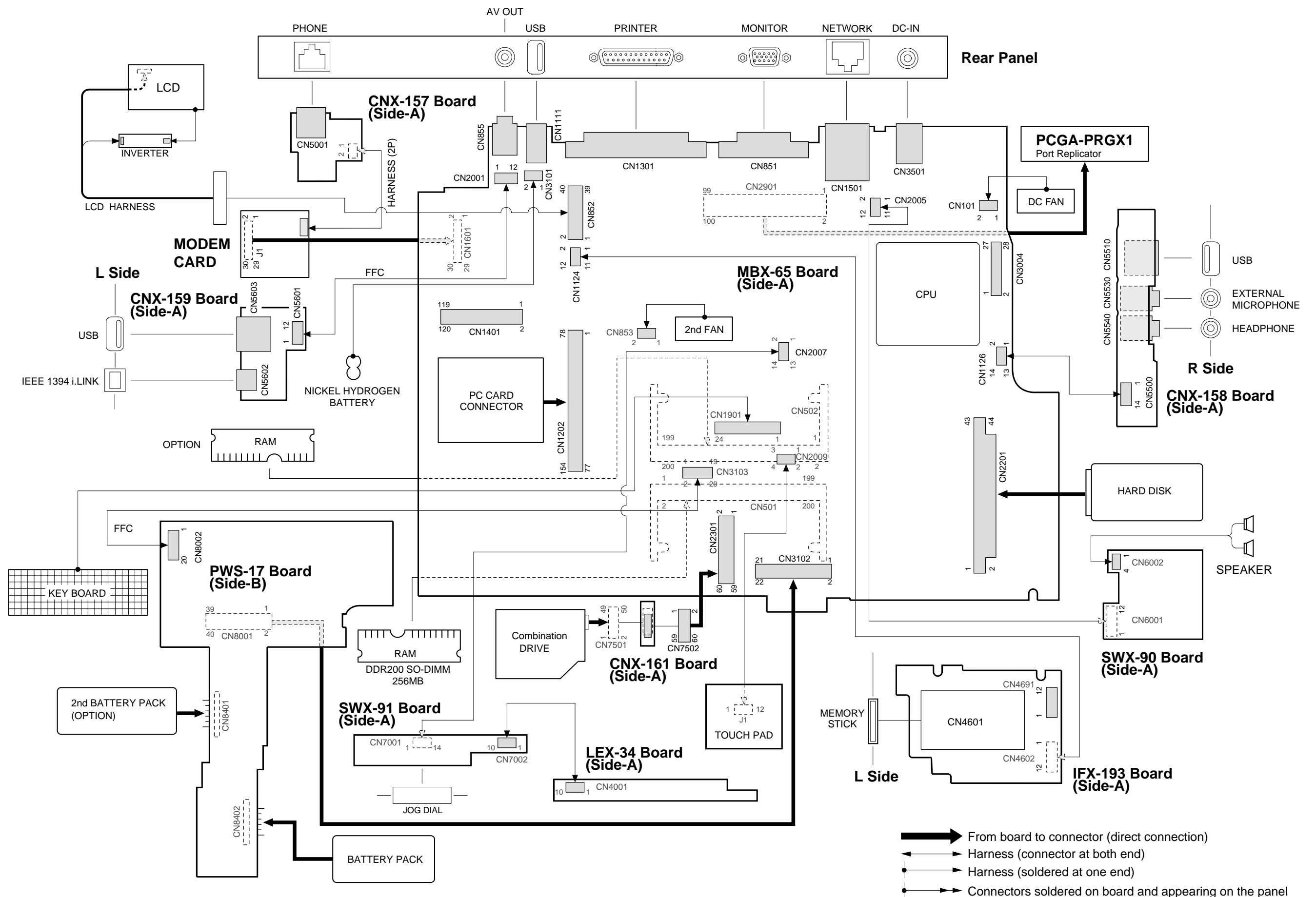
PCG-GRX Series BLOCK DIAGRAM Rev.0.51



Confidential

CHAPTER 4.

FRAME HARNESS DIAGRAM






CHAPTER 5.

EXPLODED VIEWS AND PARTS LIST

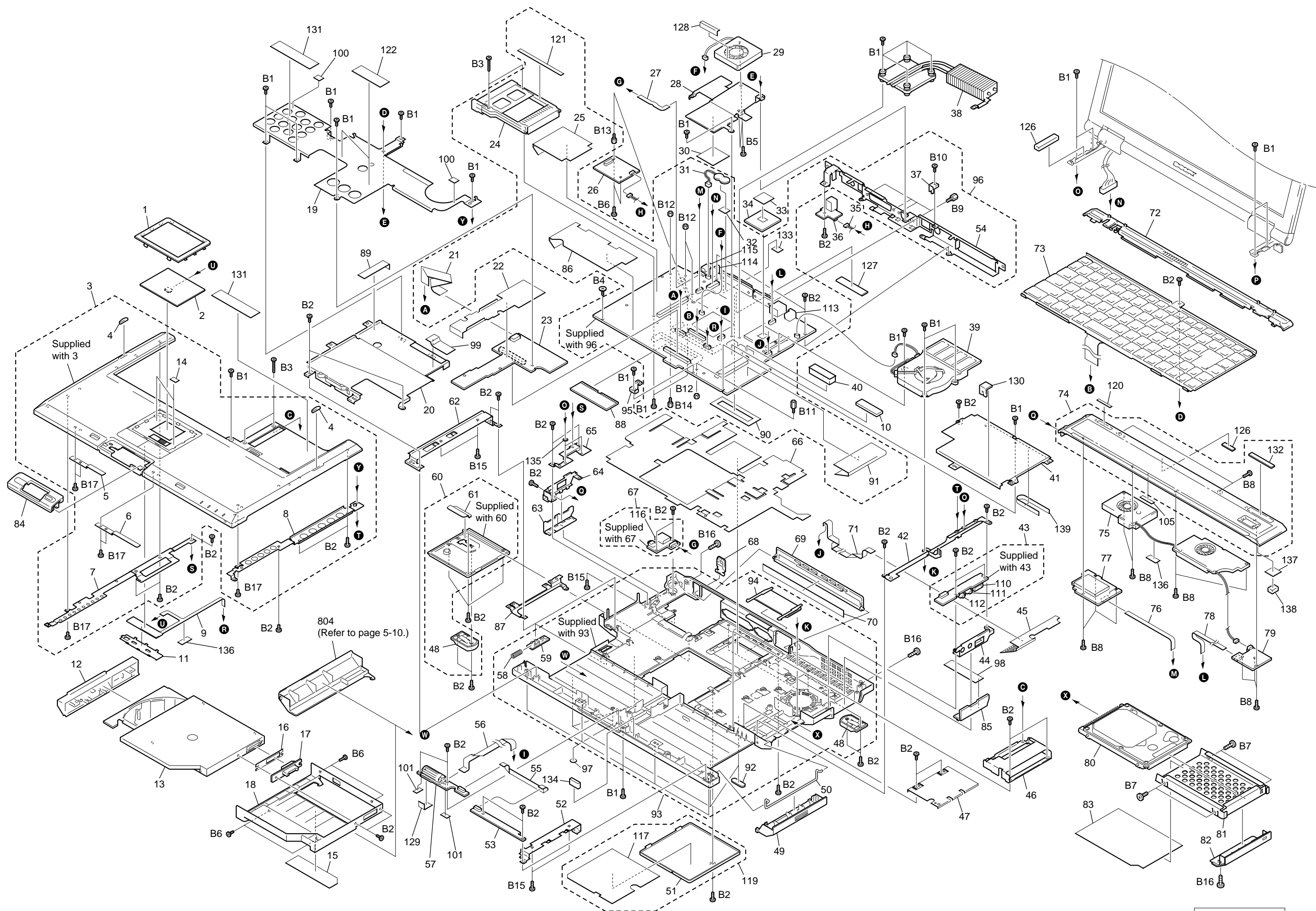
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked “ * ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- When two or more parts are shown in parallel, use the part described first as the main part.
- The indication [CH] is used for identification of part type.
- Regarding the boards of this model, the discrete parts on the boards cannot be replaced. However, Some connectors can be replaced.

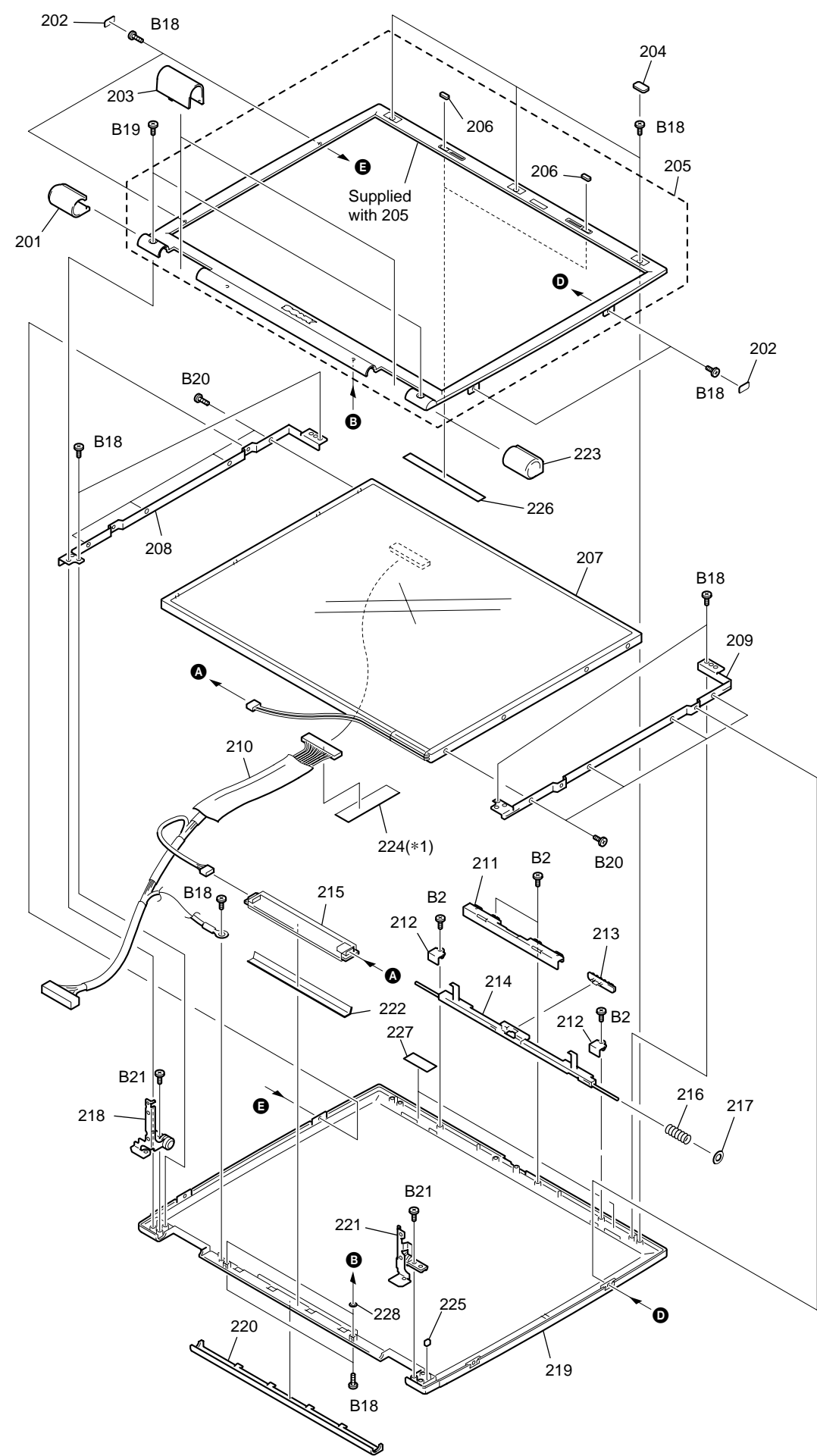
The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.
Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

5-1. Main Section

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description	Ref.No.	Part No.	Description	Ref.No.	Part No.	Description		
1	4-660-888-01	ESCUSHON TACHPAD	61	4-661-288-01	INSULATOR DOOR MODEM	131	4-664-285-01	CUSHION KEYBOARD R	B1	4-641-726-41	SCREW (M2), SPECIAL HEAD		
2	1-796-166-21	PAD, TOUCH	* 62	4-660-448-01	SUB-FRAME BAY	132	4-661-644-01	SHEET, EYE CONVERTER	B2	4-641-726-12	SCREW (M2), SPECIAL HEAD		
3	X-4624-531-1	ASSY PALMREST	63	X-4624-538-2	ASSY DOOR L	133	4-664-362-01	CUSHION IO LEFT	B3	7-621-772-70	SCREW +B 2X14		
4	4-660-904-01	CUSHION PALMREST	64	4-660-822-02	BRACKET DOOR L	134	4-664-363-01	CUSHION SPRING BLIND R	B4	4-654-387-01	SCREW (MBX)		
5	4-660-906-01	SPRING BLIND	65	4-660-452-01	HINGE BASE LEFT	135	4-664-482-01	SPACRER HINGE L	B5	4-641-656-12	SCREW (M2.5), 0 PLATE P		
6	4-660-906-11	SPRING BLIND	66	4-660-872-01	INSULATOR HEATSINK BOTTOM	136	_____	FILAMENT TAPE (W12X30) (*1)	B6	4-656-703-01	SCREW M2		
* 7	4-660-900-01	PLATE ARM LEFT	67	A-8067-161-A	COMPLETE PWB CNX-159	137	4-665-491-01	SHEET HOOD R	B7	4-635-301-01	SCREW M3X4		
* 8	4-660-901-01	PLATE ARM RIGHT	68	4-660-544-02	CAP MODEM	138	4-665-490-01	CUSHION HOOD R	B8	4-639-112-01	SCREW M2X4		
9	1-761-518-11	PWB, FLEXIBLE PRINT	69	4-660-864-02	DOOR IO	139	4-665-467-01	SPACER BATTERY (K)	B9	4-635-966-01	SCREW (HEX)		
10	4-662-607-01	THERMAL SHEET FET	70	4-660-874-01	LABELIO	*1 Use the FILAMENT TAPE					B10	4-642-852-01	+B M2
* 11	4-660-903-01	BRACKET TOUCHPAD	71	1-823-724-11	CABLE, FLEXIBLE FLAT						B11	4-654-386-01	SPACER (PWS)
12	X-4624-620-2	ASSY BEZEL COMBO (CNC)	72	4-660-887-01	DISPLAY BASE						B12	7-622-205-05	NUT M2 TYPE2
13	8-458-828-70	RW DRIVE CRX810E-VN	73	1-477-285-71	KEYBOARD UNIT (LA)						B13	4-651-989-01	SPACER (MBX)
14	4-661-451-01	ADHESIVE TAPE TOUCHPAD	74	X-4624-605-1	ASSY HOOD KEYBOARD						B14	4-661-248-01	SPACER 4MM
15	4-662-272-01	LAVEL COMBO DRIVE	75	1-825-081-11	SPEAKER, (2.8CM) BOX WITH						B15	4-641-726-81	SCREW (M2), SPECIAL HEAD
16	4-654-837-01	SHEET BAY BOARD	76	1-823-719-11	CABLE, FLEXIBLE FLAT						B16	4-654-811-01	SCREW M3
17	A-8067-159-A	COMPLETE PWB CNX-161	77	A-8067-178-A	COMPLETE PWB IFX-193						B17	4-657-192-01	SCREW, TAPPING, SPECIAL
18	4-660-860-02	CASE BAY	78	1-823-720-11	CABLE, FLEXIBLE FLAT								
19	X-4624-533-2	ASSY PLATE KEYBOARD	79	A-8067-173-A	COMPLETE PWB SWX-90								
20	X-4624-528-1	ASSY BRACKET BAY	80	A-8059-344-A	ASSY HDD 30GB (T,20,F) (S)								
21	1-823-721-11	CABLE, FLEXIBLE FLAT	* 81	4-653-799-02	BRACKET HDD								
22	4-661-289-01	INSULATOR PWS	82	X-4624-536-2	ASSY DOOR HDD								
23	A-8067-167-A	COMPLETE PWB PWS-17	83	4-653-801-02	SHEET HDD								
24	1-815-594-21	CONNECTOR, PC CARD(EJECT,RIGHT)	84	X-4624-532-1	ASSY ESCUSHION JOG								
25	4-660-831-01	INSULATOR PCMCIA	85	X-4624-539-1	ASSY DOOR R								
26	1-761-380-23	CARD, MODEM	86	4-660-830-01	INSULATOR BAY								
27	1-761-519-11	PWB, FLEXIBLE PRINT	* 87	4-660-449-01	SUB-FRAME BOTTOM LEFT								
* 28	4-660-852-02	HEATSINK GHC	88	6-600-080-01	IC M470L3224BT0-CB0								
* 29	1-763-828-11	2ND FAN			(DDR200 SO-DIMM 256MB)								
30	4-660-836-01	THERMAL SHEET GHC	89	4-662-961-01	SHEET BLIND L								
31	1-756-281-11	BATTERY, NICKEL HYDROGEN	90	4-654-953-01	SHEET PORT								
32	4-642-711-01	SHEET (BATTERY), ADHESIVE	91	4-662-926-01	INSULATOR HDD PWB								
33	4-660-835-01	THERMAL SHEET CPU	92	4-660-868-12	FOOT FRONT								
34	6-702-109-01	IC RH80532GC017512 (P4 1400MHz)	93	X-4624-527-2	ASSY BOTTOM								
35	1-960-827-61	HARNESS (2 PIN)	94	4-660-866-02	DOOR PORT								
36	A-8067-165-A	COMPLETE PWB CNX-157	95	4-662-798-01	PLATE GND PWS								
37	4-660-876-01	PLATE DC JACK	96	A-8059-921-A	MBX-65 ASSY (S)								
38	4-660-853-01	THERMAL FIN	97	4-654-380-11	CAP BAY								
* 39	1-763-829-11	CPU FAN	98	4-664-333-01	CUSHEET DOOR R								
40	4-660-796-01	THERMAL SHEET COIL	99	4-664-547-01	SHEET FPC								
41	4-660-445-02	BRACKET BATTERY	100	4-664-632-01	SPACER K								
* 42	X-4624-936-1	ASSY SUB FRAME BOTTOM RIGHT	101	4-664-678-01	SPACER J								
43	A-8067-163-A	COMPLETE PWB CNX-158	105	4-664-561-01	ADHESIVE TAPE								
44	4-660-823-02	BRACKET DOOR R	110	1-793-365-11	CONNECTOR, USB (A)								
45	4-661-272-02	INSULATOR BOARD AUDIO	111	1-793-162-11	JACK, SMALL TYPE								
* 46	4-660-905-01	HOLDER HDD	112	1-695-514-21	JACK (SMALL TYPE) 1P								
* 47	4-660-451-01	PLATE GND HDD	113	1-779-745-21	JACK, DC								
48	4-663-115-01	FOOT REAR FIXED	114	1-815-221-22	CONNECTOR, USB (A)								
49	4-660-861-02	DOOR BATTERY	115	1-694-761-11	JACK, SMALL TYPE								
50	4-660-443-01	SPRING DOOR BATTERY	116	1-794-548-11	CONNECTOR, USB(A)								
51	4-660-862-02	DOOR DIMM	117	4-662-984-01	INSULATOR DOOR DIMM								
* 52	4-660-447-01	SUB-FRAME BATTERY	119	X-4624-855-2	ASSY DOOR DIMM								
53	A-8067-169-A	COMPLETE PWB LEX-34	120	4-663-392-81	(GRX707)...LABEL ID (LA)								
* 54	X-4624-529-2	ASSY BRACKET IO	120	4-663-392-91	(GRX606)...LABEL ID (LA)								
55	1-823-725-11	CABLE, FLEXIBLE FLAT	121	4-663-828-01	SPACER PC CARD								
56	1-823-723-11	CABLE, FLEXIBLE FLAT	122	4-663-827-01	CUSHION KEYBOARD								
57	A-8067-171-A	COMPLETE PWB SWX-91	126	4-663-230-02	CUSHION HOOD								
58	4-653-745-01	SPRING BAY	127	4-663-227-01	CUSHION IO								
59	4-659-630-02	LATCH BAY	128	4-664-048-01	INSULATOR FAN								
60	X-4624-530-2	ASSY DOOR MODEM	129	4-664-308-01	SHEET JOG								
			130	4-664-286-01	SPACER R								



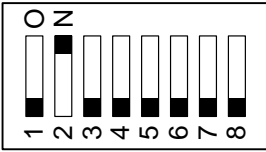
5-2. LCD Section (GRX707) – Made by HI–



Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
201	4-660-847-01	CAP LCD L	B2	4-641-726-12	SCREW (M2), SPECIAL HEAD
202	4-660-851-01	LCD SCREW COVER S	B18	4-645-214-61	GRIP, M2
203	4-660-897-01	COVER HINGE	B19	4-644-637-01	GRIP, M2 EG
204	4-660-850-01	LCD SCREW COVER T	B20	7-621-259-25	SCREW +P 2.6X4
205	X-4624-525-1	ASSY BEZEL	B21	4-663-482-11	M2 SCREW (HARDENING)
206	4-660-846-01	LATCH RUBBER			
207	A-8059-922-A	ASSY LCD 16U (HI) (S)			
* 208	4-660-839-02	BRACKET LCD L			
* 209	4-660-840-02	BRACKET LCD R			
210	1-961-573-11	HARNESS (LCD)			
211	4-660-844-01	LATCH HOLDER LCD			
212	4-660-828-01	LATCH GUIDE			
213	4-660-907-01	LATCH_BOTTOM			
214	4-660-843-02	LATCH LEVER			
215	1-477-101-11	INVERTER UNIT			
216	4-663-929-01	SPRING (LCD) (16)			
217	4-663-477-01	SPACER LATCH			
* 218	X-4624-534-2	ASSY HINGE L			
219	X-4624-847-1	ASSY DISPLAY (F)			
220	4-660-849-02	CAP LCD C			
* 221	X-4624-535-2	ASSY HINGE R			
222	4-662-783-01	INSULATOR INVERTER			
223	4-660-848-01	CAP LCD R			
224		FILAMENT TAPE (W19X50) (*1)			
225	4-664-545-01	SPACER (HINGE) (16) (R)			
226	4-664-314-01	SHEET (LCD) (BEZEL UP)			
227	4-664-062-01	SHEET LCD LATCH			
228	4-664-316-01	SHEET (LCD) (BOSS)			

*1 Use the FILAMENT TAPE.

NOTE :
Set the DIP switch on the MBX-65 board (Main board) to match with the LCD that is used in this computer.

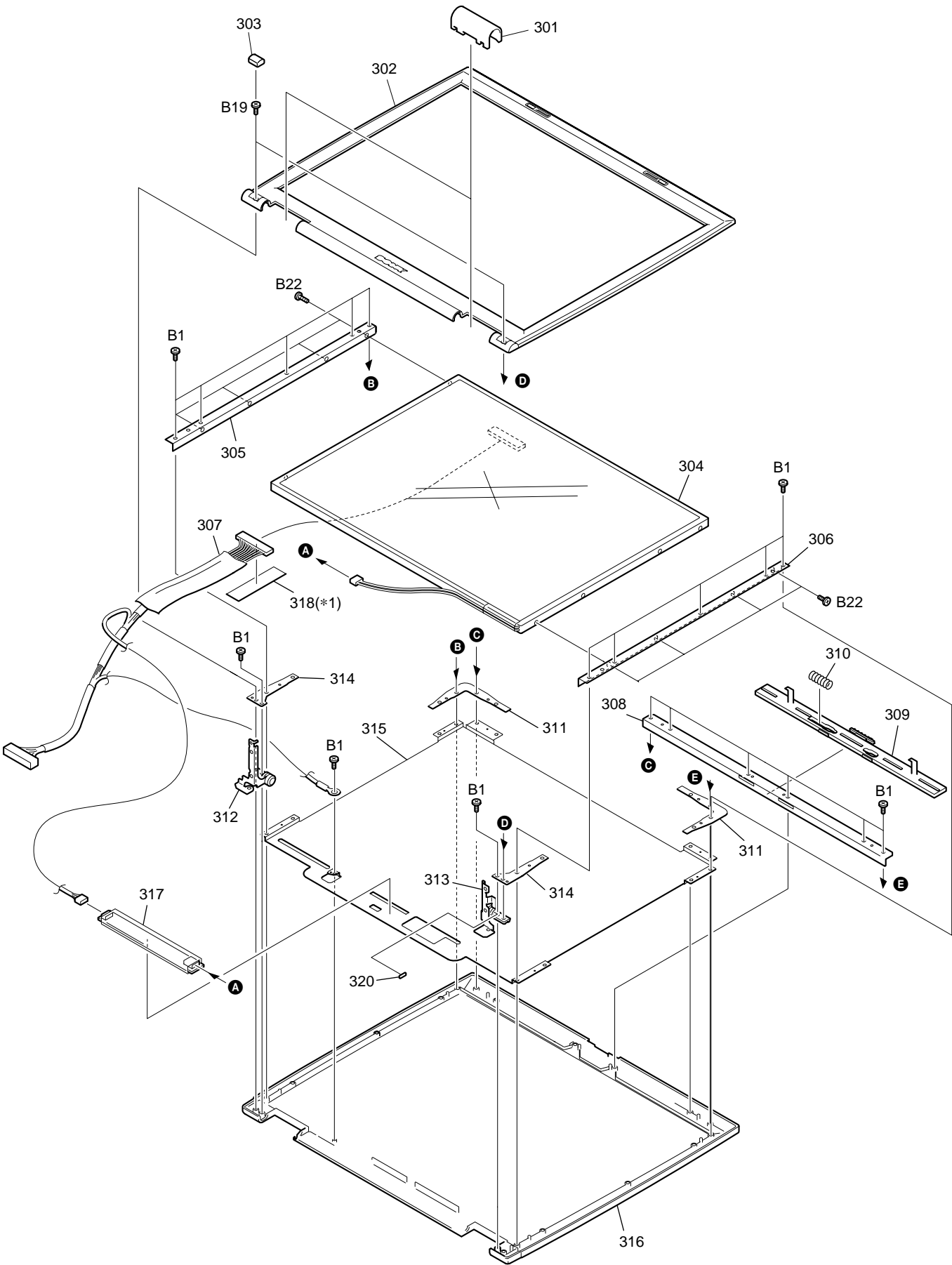


The upper position where ON indication is shown is the ON position . The lower position is the OFF position.

No.	1	2	3	4	5	6	7	8
ON/OFF	1	0	1	1	1	1	1	1

0 : ON 1: OFF

5-3. LCD Section (GRX606) – Made by HI–

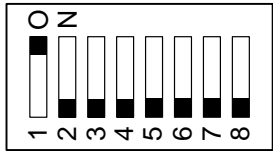


Ref.No.	Part No.	Description
301	4-660-897-01	COVER HINGE
302	X-4624-586-1	ASSY BEZEL DISPLAY 15
303	4-660-919-01	COVER SCREW LOWER 15
304	A-8110-283-A	ASSY LCD 15HI AP(S)
* 305	4-660-912-01	BRACKET LCD L 15
* 306	4-660-913-01	BRACKET LCD R 15
307	1-961-573-21	HARNESS (LCD)
* 308	4-660-914-01	BRACKET LCD UPPER 15
309	4-660-911-01	LATCH LEVER 15
310	4-653-745-01	SPRING BAY
* 311	4-660-916-01	PLATE LCD UPPER 15
* 312	X-4624-534-2	ASSY HINGE L 15
* 313	X-4624-535-2	ASSY HINGE R 15
* 314	4-660-915-01	PLATE LCD LOWER 15
315	4-660-918-01	SEALED LCD 15
316	X-4624-587-1	ASSY HOUSING DISPLAY 15
317	1-476-316-11	INVERTER UNIT
318		FILAMENT TAPE (W19X50) (*1)
320	4-664-546-01	SPACER (HINGE) (15) (R)
B1	4-641-726-41	SCREW (M2), SPECIAL HEAD
B19	4-644-637-01	GRIP, M2 EG
B22	4-641-726-81	SCREW (M2), SPECIAL HEAD

*1 Use the FILAMENT TAPE.

NOTE :

Set the DIP switch on the MBX-65 board (Main board) to match with the LCD that is used in this computer.

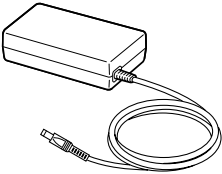


The upper position where ON indication is shown is the ON position . The lower position is the OFF position.

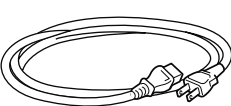
No.	1	2	3	4	5	6	7	8
ON/OFF	0	1	1	1	1	1	1	1
0 : ON 1: OFF								

Ref.No.	Part No.	Description
ACCESSORIES *****		
△ 801	1-477-206-21	ADAPTOR, AC
802	1-756-269-11	BATTERY, LITHIUM ION (PCGA-BP2NX)
△ 803	1-757-562-21	CORD, POWER
804	4-660-884-02	WEIGHT SAVER (Refer to page 5-5.)
	4-662-722-11	SPECIFICATION 2 LA
	4-662-724-11	QUICK START, ARIES 2 LATIN

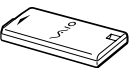
801
AC Adaptor (1)



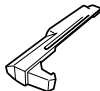
803
Power Cord (1)



802
Battery Pack (1)



804
Weight Saver (1)




The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

List of PCG-GRX Series (As of April, 2002)

Model Name	Service Manual Part No.
PCG-GRX550 PCG-GRX550K PCG-GRX550P PCG-GRX570 PCG-GRX570K PCG-GRX570P PCG-GRX590 PCG-GRX590K PCG-GRX590P	9-874-523-01
PCG-GRX606 PCG-GRX707	9-874-526-01

 : Additional Models

This manual and the constituent data may not be replicated, copied nor reprinted in whole or in part without prior written authorization of Sony Corporation.

Revision History

Suffix	Ver.	Date	Contents	QM No.
-01	Ver. 1	2002.04.09	First Edition	
< Remarks >				